

Practice B

For use with pages 108–113

Check whether the given ordered pairs are solutions of the inequality.

1. $2x - 3y \leq 2$; $(0, -1)$, $(3, 2)$
2. $x + 2y > 4$; $(2, 1)$, $(-3, 6)$
3. $5x + y \geq -3$; $(-3, 6)$, $(2, -5)$
4. $3x - 10y < -8$; $(6, 3)$, $(-4, -2)$
5. $4y - 2x < 5$; $(2, 0)$, $(-3, 1)$
6. $2y + x \geq 3$; $(-1, -2)$, $(1, 1)$

Graph the inequality in a coordinate plane.

7. $x \geq 1$
8. $x < -\frac{1}{2}$
9. $2x > 6$
10. $y < 4$
11. $y \geq -5$
12. $\frac{1}{3}y \geq -2$
13. $y < 2x - 1$
14. $y \geq \frac{1}{2}x + 5$
15. $4x + y \leq -2$
16. $x + 2y > 4$
17. $-5x + 5y > 1$
18. $3x - y \leq 7$
19. $2x - 4y > 8$
20. $6x - 3y \geq -1$
21. $12x + 4y < 8$

Defrosting Meat In Exercises 22–24, use the following information.

According to one cookbook, you should always defrost meat in the original wrappings on a refrigerator shelf. You should allow 5 hours for each pound, less for thinner cuts.

22. Write and graph an inequality that represents the time t (in hours) and the number of pounds p of meat being defrosted. Use t on the vertical axis and p on the horizontal axis.
23. What are the coordinates of a 2-pound roast that has been defrosting for 12 hours?
24. Is it possible that the roast in Exercise 23 is completely defrosted? Explain your answer.

Fundraiser In Exercises 25–27, use the following information.

An environmentalist group is planning a fundraiser. The group wants to purchase caps and T-shirts with their logo on them and sell them at a profit. They can buy caps for \$3 each and T-shirts for \$5 each. They have \$800 to spend.

25. Write and graph an inequality that represents the numbers of caps x and T-shirts y that the group can buy.
26. Suppose the group purchased 50 caps and 150 T-shirts. What point on the coordinate plane represents this purchase?
27. Is the point in Exercise 26 a solution of the inequality?